

# Archived Information

## STUDY OF EDUCATION RESOURCES AND FEDERAL FUNDING AND EDUCATIONAL TECHNOLOGY: SELECTED FINDINGS

(U.S. Department of Education -- September 2000)

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The Technology Literacy Challenge envisions a 21<sup>st</sup> century where all students are technology literate and have access to the educational resources of the Information Superhighway. In a modern classroom, educational technology improves teaching and learning while also equipping students with the skills needed for tomorrow's workforce. Numerous U.S. Department of Education programs provide millions of dollars annually to support state and local efforts to implement educational technology in elementary and secondary schools across the nation. The Study of Education Resources and Federal Funding (SERFF) examined the allocation and use of funds provided to school districts and schools through Goals 2000 and five of the largest ESEA programs (Titles I, II, III, IV and VI) for FY 1997, which corresponds to the 1997-98 school year.<sup>1</sup>

Key SERFF findings related to educational technology include:

- **Most teachers reported that their lessons required students to use computers, but relatively few incorporated the use of computers on a daily basis. Fewer teachers reported lessons requiring students to use the Internet.** Forty-five percent of teachers reported that their lessons required student use of the computers at least weekly. Thirteen percent of teachers reported lessons requiring use of the Internet at least weekly. Thirty percent of teachers reported that their lessons never or hardly ever required students to use computers and 67 percent reported that that their lessons never or hardly ever required students to use the Internet.
- **Computer and Internet use was much more prevalent in elementary schools than in secondary schools.** Nearly two-thirds (65 percent) of elementary teachers reported weekly or daily lessons requiring student use of computers and 20 percent reported weekly or daily lessons requiring student use of the Internet. Among secondary school teachers, 29 percent reported weekly or daily lessons requiring student use of computers and 7 percent reported weekly or daily lessons requiring student use of the Internet.
- **Seventy-nine percent of districts reported that the long-term district plan was “extremely influential” in district decisions about how to use technology funds.** Other frequently reported factors influencing district decisions about the use of technology funds included: the extent of the need for technology equipment, software and training at individual schools (47 percent); state policies (39 percent); priorities of individual schools (38 percent); and supporting special technology programs at individual schools (27 percent).
- **District strategies for increasing access to technology for students and their teachers involve a combination of purchasing additional computers and providing additional training on the use of computers.** Eighty-four percent of districts indicated that they used technology funds a great deal to increase teachers' access to computer technology. Other strategies districts reported using a great deal included: increasing students' access to computer technology in classrooms (83 percent), developing teachers' skills in using technology (75 percent), integrating technology into classroom instruction (72 percent), increasing students' access to the Internet (71 percent), increasing students' access to computer technology in media centers or libraries (69 percent), aligning technology with content and performance standards (41 percent), and improving communication with parents (10 percent).

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<sup>1</sup> The Technology Literacy Challenge Fund (TLCF) was first funded in fiscal year 1997. Most TLCF funds were awarded to states and districts after data for the SERFF study was collected.

- **Most principals and teachers identified barriers to the effective use of technology.** More than two-thirds (70 percent) of school principals and 45 percent of teachers reported that the major barrier to effective use of technology was insufficient teacher understanding of ways to integrate technology into the curriculum. They also reported the following as major barriers to the effective use of technology: the lack of software integrated with curriculum (68 percent of principals and 60 percent of teachers), insufficient numbers of computers (66 percent of principals and 71 percent of teachers), and insufficient technical support (58 of principals and 49 percent of teachers).
- **Federal funds paid for one-fourth (24 percent) of the new computers that schools received during the 1997-98 school year, and have of these were purchased with Title I funds (13 percent).** State and local funds paid for two-thirds of the new computers (66 percent) and private sources provided 10 percent of the new computers. Overall, the average school received 11.8 new computers per 500 students.
- **Elementary and secondary schools reported receiving similar numbers of new computers (12.6 and 11.3, respectively, for a school of 500 students).** State and local funds provided a smaller number of new computers in elementary schools (7.0) than in secondary schools (8.5). In contrast, elementary schools received a greater number of new computers from federal funds (4.3) than did secondary schools (1.6).
- **The highest-poverty elementary schools received more new computers (13.7 per 500 students) compared with low-poverty elementary schools (9.1 13.7 per 500 students)** even though overall high-poverty schools had less access to technology than low-poverty schools.
- **District technology coordinators indicated that professional development activities related to technology had focused a great deal on using technology to support a variety of activities in the last two years.** Ninety-one percent reported that professional development activities related to technology focused a great deal on developing teachers' skills in using technology. Other professional development activities related to technology districts reported focusing a great deal on included: enabling students to meet state or district proficiency standards (72 percent), curriculum and instruction specific to mathematics or science (47 percent), state or district content or performance standards (44 percent), using student data to inform school decisions (34 percent), curriculum and instruction specific to reading or language arts (32 percent), and building partnerships with parents and community (20 percent).

To view the SERFF executive summary, see [http://www.ed.gov/offices/OUS/eval/esed/serff\\_execsum.pdf](http://www.ed.gov/offices/OUS/eval/esed/serff_execsum.pdf). For a full copy of the SERFF report, call 877-433-7827 or 800-872-5327. For those who use a telecommunications device for the deaf (TDD) or a teletypewritten (TTY), call 800-437-0833. For more information on educational technology and the federal Technology Literacy Challenge, visit the U.S. Department of Education's website at <http://www.ed.gov/Technology> or contact the Office of Educational Technology at (202) 401-1444.